

IN THE SPECIFICATION

Please replace the paragraph beginning on page 1, line 19 as shown below.

It has been provided, for example, in PCT patent application WO/0250850 ~~of the applicant (B4882)~~ which is incorporated herein by reference, to control power switches with high-frequency signals. In this patent application, the high frequency is used for the advantage that it has of enabling use of a small transformer, which enables galvanic isolation at lesser cost but however requires a transformer. After transformation, this high frequency is applied to the gate of the component to be switched via a rectifying diode, that is, in fact, the control is performed by signals in the form of D.C. pulses.

Please replace the paragraph beginning on page 1, line 32 as shown below.

To achieve these and other objects, the present invention provides a method for controlling an SCR-type switch, ~~consisting of~~ comprising applying ~~[[on]]~~ to the switch gate several periods of an unrectified high-frequency voltage, the power of an HF halfwave being insufficient to start the SCR-type switch.

Please replace the paragraph beginning on page 2, line 27 as shown below.

According to an advantage of the present invention, the application of an HF signal in the control area of an SCR-type component may be performed without ~~for a~~ needed metallization to be in contact with the sensitive semiconductor area, which simplifies the design and structure of the switch and solves all the isolation and reference problems which are generally posed upon control by a same control circuit of various thyristors and/or triacs, or other bidirectional switches.

Please replace the paragraph beginning on page 4, line 1 as shown below.

The applicant has however tried the experiment in a ~~diagram~~ circuit of the type in Fig. 1, in which an HF signal is applied between gate G and cathode A of a thyristor. A D.C

voltage VAK of appropriate biasing is applied across the series assembly of a load L and of thyristor TH. It is considered that cathode K of the thyristor is grounded.

Please replace the paragraph beginning on page 4, line 21 as shown below.

A significant advantage of the high-frequency control is that the high-frequency voltage may be applied to the gate terminal via a coupling capacitor which exhibits a very small impedance for high frequencies and which blocks the D.C. voltage or even the A.C. voltage at the network frequency (50 or 60 hertz), to which are generally connected the control terminals of a mono- or bidirectional switch. The possibility of inserting such a coupling capacitor ~~result~~ results in that problems to be generally overcome of isolation of the control circuit with respect to the main circuit of a power switch are simply solved.

Please replace the paragraphs beginning on page 5, line 7 as shown below.

Fig. 4 shows an example of an HF-controlled thyristor according to the present invention. This component of vertical type conventionally comprises an N-type cathode region 41, formed in a P-type well 42, itself formed in a lightly-doped N-type layer 43, a P-type anode region 44 being present on the rear surface side of the component. N-type region 41 is in contact with a cathode metallization MK and is connected to a cathode terminal K. The rear surface of the component is coated with an anode metallization MA and is connected to an anode terminal A. It should be ~~reminded~~ recalled that, conventionally, a gate terminal is formed by a metallization in contact with a portion of layer 42. According to the present invention, region 42 is uniformly coated with an insulating layer 45 above which is formed a metallization MG to which it is provided to issue a high-frequency starting signal. It will again be underlined that metallization MG is completely insulated with respect to the main thyristor circuit. The HF frequency may be applied between terminal G and one or the other of terminals A and K which, being at set voltages, are considered as grounds from the viewpoint of high frequencies.

Fig. 5 shows an application of the present invention to the control of a triac. This triac comprises the same layers 41 to 44 as those previously described for the thyristor of Fig. 4. In rear surface P-type layer 44 is further formed an N-type region 51 in contact with the rear

surface metallization and, conventionally, a P-type region 52 is formed on the front surface side in N-type region 43, corresponding to a gate region. Preferably, a more heavily-doped N-type region 53 is provided in the vicinity of region 52. Metallizations MG1 and MG2 are respectively formed above P-type region 52 and N-type region 53. A high-frequency signal may for example be applied between terminals G1 and G2 connected to metallizations MG1 and MG2 and it can be ~~acknowledges~~ acknowledged that this starts the triac in the same way as the thyristor was previously started. It should be noted that terminal G2 is optional and that an HF control signal could be applied on terminal G1 only. A starting of the triac is then also acknowledged.

Please replace the paragraph beginning on page 6, line 8 as shown below.

According to another alternative of the present invention, as schematically illustrated in Fig. 7, the high frequency may be applied to a sensitive area of the switch via a winding 71 formed on an insulating layer 72 coating substrate 73 in which is formed the power component, as illustrated in Fig. 4 or 5. Various applications of such an HF injection by a coil may be used. A secondary winding may be formed in the semiconductor, for example from a diffused layer or an area filled with a conductive material such as polysilicon formed in insulated grooves formed in a portion of the semiconductor substrate, the HF being then present at the ends of the secondary winding. It can also be provided for winding 71 to generate a magnetic field which creates in the conductive material eddy currents turning on sensitive junctions as indicated previously. In such an application, the frequencies can be very high, on the order of from several megahertz to several ~~gigahertz~~ gigahertz.